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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/746,409	12/20/2000	Kent K. Leung	CISCP173/2845	3339

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EXAMINER

MARTINEZ, DAVID E

ART UNIT PAPER NUMBER

2182

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/746,409

Applicant(s)

LEUNG, KENT K.

Examiner

David E Martinez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) 1-19 and 36-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20, 24, 34, 35, 39, 43, 53-55, 59 and 69-71 is/are rejected.
- 7) ☒ Claim(s) 21-23, 25-33, 40-42, 44-52, 56-58 and 60-68 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

Replacement drawings correcting the previous objection were received on 11/22/04.

These drawings are acceptable.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20, 24, 39, 43, 55, 59, and 71 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,510,153 to Inoue et al. (Inoue).

1. With regards to claims 20, 39, 55, and 71, Inoue teaches a mobile router supporting Mobile IP and being capable of requesting one or more networks during registration with a Home Agent [abstract], the mobile router comprising:

a processor [‘the mobile computer management device’ must have a processor to process the data packets/datagrams/messages and relay them over a network to other nodes, column 3 lines 5-21];

a memory [column 3 lines 5-13], at least one of the processor and the memory being adapted for:

composing a registration request packet, the registration request packet including a network allocation extension indicating one or more networks being requested by the mobile router from a Home Agent [column 3 lines 13-17];

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sending the registration request packet to the Home Agent [column 3 lines 13-17]; and

receiving a registration reply packet from the Home Agent, the registration reply including a network allocation extension identifying one or more networks allocated to the mobile router by the Home Agent [column 3 lines 17-21, column 3 lines 39-44].

2. With regards to claim 24, 43, and 59, Inoue teaches the mobile router as recited in claim 20, wherein at least one of the processor and the memory are further adapted for:

selecting from the one or more networks allocated to the mobile router by the Home Agent an IP address; and

configuring an interface of the mobile router with the IP address such that a network coupled to the interface is identified by the IP address [column 3 lines 5-21, lines 39-44].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 34, 35, 53, 54, 69, and 70, are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,510,153 to Inoue et al. (Inoue) in view of US Patent No 6,549,522 to Flynn.

3. With regards to claim 34, 35, 53, 54, 69, and 70, Inoue fails to teach the mobile router as recited in claim 20, wherein at least one of the processor and the memory are further adapted for:

sending a deregistration request to the Home Agent and receiving a deregistration reply from the Home Agent. However, Flynn teaches sending a deregistration request to the Home Agent and receiving a deregistration reply from the Home Agent, in order to let the Home agent

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know when to stop packet forwarding to a mobile node in a foreign network to free up resources [column 2 lines 51-65].

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of both Inoue and Flynn to send a deregistration request to the Home Agent in order to let the Home agent know when to stop packet forwarding to a mobile node in a foreign network to free up resources.

Allowable Subject Matter

Claims 21-23, 25-33, 40-42, 44-52, 56-58, and 60-68 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 11/22/04 have been fully considered but they are not persuasive.

Applicant argues:

I. "Inoue relates to the allocation of a single address, rather than one or more networks. than one or more networks.. It is also important to note that Inoue relates to a mobile node rather than a mobile router. Thus, Inoue neither discloses nor suggests sending a request packet including a network allocation extension indicating one or more networks being requested by a mobile router from a Home Agent. Similarly, Inoue neither discloses nor suggests receiving a reply packet from the Home Agent that includes a network allocation extension identifying one or more networks allocated to the mobile router by the Home Agent. Since Inoue fails to disclose or suggest allocating one or more networks to a mobile router, Inoue fails to disclose or suggest selecting an address from one or more networks that have been allocated to a mobile

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router, enabling the selected IP address to be used to configure an interface of the mobile router, as recited in claims 24, 43, and 59. Accordingly, Applicant respectfully submits that Inoue fails to anticipate claims 20, 24, 39, 43, 55, 59, and 71."

II. "While Flynn does disclose sending a deregistration request by a mobile node, Flynn fails to disclose the sending of a deregistration request by a mobile router. Thus, the combination of the cited references would fail to disclose or suggest the claimed invention, which relates to mobile routers. In fact, since neither of the references relates to the dynamic allocation of networks to a mobile router, the combination of the cited references would fail to operate as claimed. Moreover, since Inoue relates to the allocation of a single address to a mobile node, Inoue teaches away from the dynamic allocation of an entire network to a device such as a mobile router."

III. "Specifically, as disclosed in the background section of Applicant's specification, for mobile routers which have one or more associated networks, address space is consumed more quickly than for individual nodes. Since address space is typically allocated statically, address space may be consumed even where the networks may not be used (e.g., on a plane that is not currently flying). Thus, the claimed invention enables entire networks to be dynamically allocated to a mobile router. Since neither of the cited references discloses or suggests such a solution to the static allocation problem, Applicant respectfully submits that claims 34, 35, 53, 54, 69 and 70 are patentable over the cited references."

With regards to argument I, Examiner respectfully disagrees. As noted by the applicant, the allocation of a single address falls within the realms of one network. When you have two computers, and one of them assigns a network address to the other computer, you are in fact allocating a network. As for "Inoue relating to a mobile node rather than a mobile router", Inoue

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teaches a router ("mobile router") called a foreign agent (FA) that can carry out the applicant's claimed invention [column 5 lines 45-59] or having that particular operation being implemented by the mobile computer itself while playing the role of the foreign agent (FA/mobile router) [column 5 lines 45-49, column 3 lines 13-17, fig 2, column 4 lines 54-56]. Inoue therefore teaches "sending a request packet including a network allocation extension indicating one or more networks being requested by a mobile router from a Home Agent". In addition, Inoue also teaches "receiving a reply packet from the Home Agent that includes a network allocation extension identifying one or more networks allocated to the mobile router by the Home Agent [fig 2, column 3 lines 13-17, column 4 lines 57-59, column 6 lines 49-58]. Inoue goes on to further teach selecting an address from one or more networks that have been allocated to a mobile router, enabling the selected IP address to be used to configure an interface of the mobile router [when the mobile computer (acting as a mobile router) receives the response message sent by the home agent, the reply (the registration response reply packet (fig 3)) carries the "Code" field which represents the assertion (selection) or failure of the allocation of the address (network) specified during the previous communication as shown in fig 2].

With regards to argument II, In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, since Inoue does in fact deal with a mobile router as explained above, the combination of Inoue and Flynn is competent and thus is obvious over the claimed invention. Furthermore, although as noted by applicant that "Inoue relates to

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the allocation of a single address to a mobile node", the allocation of a single address is the equivalent to the allocation of a network as also shown above, and a mobile router is a mobile node thus the combination of Inoue and Ferry are obvious over the claimed limitation.

With regards to argument III, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "for mobile routers which have one or more associated networks, address space is consumed more quickly than for individual nodes. Since address space is typically allocated statically, address space may be consumed even where the networks may not be used (e.g., on a plane that is not currently flying)") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

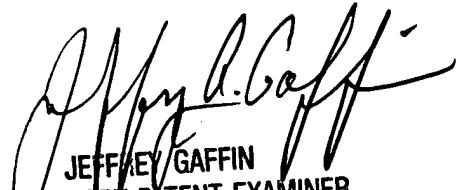
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E Martinez whose telephone number is (571) 273-4152. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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